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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,597	12/01/2005	Per Brandt Rasmussen	6495-0139WOUS	1521

35301 7590 06/28/2007  
MCCORMICK, PAULDING & HUBER LLP  
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HARTFORD, CT 06103

EXAMINER
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COHEN, AMY R

ART UNIT	PAPER NUMBER
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2859

MAIL DATE	DELIVERY MODE
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06/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/559,597	<b>Applicant(s)</b> RASMUSSEN, PER BRANDT	
	<b>Examiner</b> Amy R. Cohen	<b>Art Unit</b> 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/01/05; 1/16/07</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because there appears to be two sets of drawings. It is unclear which set of drawings is Applicant's desired set of drawings. One set of drawings contains figures on six sheets of paper; the other set contains similar figures on three sheets of paper. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 14-17, 21-24, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kooiman (U. S. Patent No. 4,572,000).

Regarding claims 14-17, 21-24: Kooiman teaches a pressure indicator (10) for indicating a pressure difference between a pressure P1 of a first chamber and a reference pressure (Col 1, lines 23-45), said indicator comprising a sealed pressure chamber having a sidewall with an inflexible first wall part (20) arranged at a distance from a flexible second wall part (32, 42), the pressure chamber being completely filled with a fluid at the reference pressure (Col 2, lines 24-31, Col 3, lines 24-35, Col 4, lines 16-40), the second wall part being arranged to separate the pressure chamber from the first chamber and to deflect upon a pressure difference between P1 and the reference pressure (Fig. 1, Col 2, lines 32-50, Col 3, lines 24-35, Col 4, lines 16-40), said deflection changing the distance between the first and second wall parts thereby displacing the fluid in the pressure chamber (Col 3, lines 24-63, Col 4, lines 16-40), the indicator further comprising a flexible third wall part (32, 42) separating the pressure chamber from a second chamber, the second chamber holding a pressure P2 (Col 2, lines 24-31, Col 3, lines 24-35, Col 4, lines 16-40), wherein the first wall part is substantially transparent to electromagnetic radiation within a specific wave length (Col 1, lines 23-45, Col 2, lines 37-50), and where the fluid is an incompressible liquid substance (Col 2, lines 24-31).

Kooiman teaches the pressure indicator wherein the pressure chamber comprises a first compartment adjacent the second wall part and a second compartment adjacent the third wall

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part, and a connecting channel providing fluid communication between the first and second compartments (Fig. 1, Col 2, lines 13-31, Col 3, lines 24-38, Col 4, lines 16-40).

Kooiman teaches the pressure indicator wherein the second and third wall parts have equal surface areas towards the first and second chambers, respectively (Fig. 1, Col 2, lines 32-50, Col 3, lines 7-23).

Kooiman teaches the pressure indicator wherein the second and third wall parts have equal stiffness (Fig. 1, Col 2, lines 32-50, Col 3, lines 7-23).

Kooiman teaches the pressure indicator having a stacked configuration comprising a first layer made of glass and a second layer made of silicon (Col 1, lines 37-45, Col 2, lines 39-50, Col 3, lines 7-23).

Kooiman teaches the pressure indicator comprising a third layer made of glass (Col 1, lines 37-45, Col 2, lines 39-50, Col 3, lines 7-23, Col 3, line 64-Col 4, line 4).

Kooiman teaches the pressure indicator wherein the first and third layers have substantially plane surfaces towards the second layer and the second layer has a first surface structure towards the first layer and a second surface structure towards the third layer, wherein the first surface structure forms the pressure chamber and the second surface structure forms the first chamber (Fig. 1, Col 2, lines 31-50, Col 3, lines 7-23).

Kooiman teaches the pressure indicator wherein the second wall part is formed integrally in the second layer (Fig. 1, Col 2, lines 31-50, Col 3, lines 7-23).

Regarding claim 26: Kooiman teaches a pump with an inlet and an outlet (Fig. 1), said pump comprising: an indicator (10) for indicating a pressure difference between a pressure P1 of a first chamber and a reference pressure (Col 1, lines 23-45), said indicator comprising a sealed

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pressure chamber having a sidewall with an inflexible first wall part (20) arranged at a distance from a flexible second wall part (32, 42), the pressure chamber being completely filled with a fluid at the reference pressure (Col 2, lines 24-31, Col 3, lines 24-35, Col 4, lines 16-40), the second wall part being arranged to separate the pressure chamber from the first chamber and to deflect upon a pressure difference between P1 and the reference pressure (Fig. 1, Col 2, lines 32-50, Col 3, lines 24-35, Col 4, lines 16-40), said deflection changing the distance between the first and second wall parts thereby displacing the fluid in the pressure chamber (Col 3, lines 24-63, Col 4, lines 16-40), the indicator further comprising a flexible third wall part (32, 42) separating the pressure chamber from a second chamber, the second chamber holding a pressure P2 (Col 2, lines 24-31, Col 3, lines 24-35, Col 4, lines 16-40), wherein the first wall part is substantially transparent to electromagnetic radiation within a specific wave length (Col 1, lines 23-45, Col 2, lines 37-50), and where the fluid is an incompressible liquid substance (Col 2, lines 24-31); wherein said pump is arranged with the first chamber in fluid communication with the inlet and the second chamber in fluid communication with the outlet to obtain indication of pressure difference between the inlet and the outlet of the pump (Col 1, lines 23-45, Col 4, lines 16-40).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 18-20 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kooiman in view of Zias et al. (U. S. Patent no. 4,996,627) and in view of Miller (U. S. Patent No. 4,521,683).

Kooiman discloses the pressure indicator as described above in paragraph 2 and wherein the indicator can comprise optical means (Col 5, lines 1-13).

Kooiman does not disclose the pressure indicator wherein the second and third wall parts extend in identical same planes; wherein first wall part is arranged adjacent to, and in a plane which is parallel to the planes of the second and third wall parts; comprising illuminating means for projecting electromagnetic radiation within a specific wavelength from an outer side surface of the second wall part, through the second or third wall part, though the chamber and out of the chamber through the first wall part; comprising an array of indicators comprising a plurality of indicators.

Zias et al. discloses a pressure indicator wherein the second and third wall parts extend in identical same planes; wherein first wall part is arranged adjacent to, and in a plane which is parallel to the planes of the second and third wall parts (Figs. 5, 8-18, Col 2, line 48-Col 3, line 10, Col 3, lines 60-68, Col 13, line 42-Col 14, line 31); comprising an array of indicators comprising a plurality of indicators (Figs. 5, 8-18, Col 2, line 48-Col 3, line 10, Col 3, lines 60-68, Col 13, line 42-Col 14, line 31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the pressure indicator of Kooiman have second and third wall parts in an identical plane and to provide an array of indicators, as taught by Zias et al., so that a user could test multiple pressures at a single time, thereby increasing productivity.

Miller discloses a pressure indicator comprising illuminating means for projecting electromagnetic radiation within a specific wavelength from an outer side surface of the second wall part, through the second or third wall part, through the chamber and out of the chamber through the first wall part (Col 2, lines 24-57, Col 4, lines 43-68).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the sensing means of Kooiman and Zias et al. be illumination means, as taught by Miller, since Kooiman already discloses using optical means to indicate the pressure (Kooiman, Col 5, lines 1-13), and since illumination is one form of optical means which can be used.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following disclose pressure indicators Keiser (U. S. Patent No. 5,526,692) and Popenoe (U. S. Patent No. 5,189,979).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R. Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARC

June 22, 2007

  
G. BRADLEY BENNETT  
PRIMARY EXAMINER  
AV 2859